

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended) A temperature controlled structure for a an oscillator device, comprising:

a package enclosure having a top, a floor, and side walls, and wherein ~~one or more~~ at least one pins extends from said package;

a thermal conductive substrate housed within said package enclosure;

a resonator mounted to said thermal conductive substrate;

~~two or more~~ at least one insulating structures securing said thermal conductive substrate;

a second substrate disposed between said thermal conductive substrate and said floor,

said second substrate having at least one component secured to said package floor; and

~~one or more~~ at least one interconnects electrically connecting said thermal conductive substrate with said second substrate and with said ~~one or more~~ at least one pins.

Claim 2(Original) The temperature controlled structure according to claim 1, wherein said resonator is a surface acoustical wave device and directly bonded to said thermal conductive substrate.

Claim 3(Original) The temperature controlled structure according to claim 1, wherein said resonator is a bulk acoustical wave device and secured by a plurality of clips extending from said thermal conductive substrate.

Claim 4(Original) The temperature controlled structure according to claim 1, further comprising a heater device, temperature sensor and temperature control circuitry.

Claim 5(Currently Amended) The temperature controlled structure according to claim 1, further comprising ~~one or more~~ at least one additional substrate layers.

Claim 6(Original) The temperature controlled structure according to claim 1, wherein said package is vacuum evacuated.

Claim 7(Original) The temperature controlled structure according to claim 1, wherein said thermal conductive substrate and said second substrate are ceramic.

Claim 8(Original) The temperature controlled structure according to claim 1, wherein said insulating structures are glass posts.

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Claim 9(Currently Amended) The temperature controlled structure according to claim 1, further comprising a temperature hood covering ~~one or more of said temperature sensitive components on~~ said thermal conductive substrate.

Claim 10 (Currently Amended) A temperature controlled package for an oscillator, comprising:

A device enclosure having a top, a floor, and side walls, and wherein ~~one or more~~ at least one pins extends from said package, wherein said device enclosure is evacuated;
a thermal conductive substrate housed within said device enclosure;
a surface acoustical wave device directly bonded to said thermal conductive substrate;
~~two or more~~ at least one insulating posts securing said thermal conductive substrate;
a second substrate level disposed between said floor and said thermal conductive substrate wherein said second substrate level houses at least one component;
a temperature controller for maintaining an internal temperature above an ambient temperature, wherein said controller uses ~~one or more~~ at least one temperature sensors and ~~one or more~~ at least one heaters to maintain said internal temperature; and
~~one or more~~ at least one interconnects electrically connecting said thermal conductive substrate to said ~~one or more~~ at least one pins and said second substrate level.

Claim 11(Cancelled)

Claim 12(Currently Amended) The temperature controlled package for an oscillator according to claim ~~11~~10, further comprising ~~one or more~~ at least one additional substrate layers level disposed between said floor and said thermal conductive substrate.

Claim 13(Currently Amended) The temperature controlled package for an oscillator according to claim 12, wherein said at least one temperature-insensitive components ~~are~~ is mounted to said ~~one or more~~ at least one additional substrate layers level.

Claim 14(Currently Amended) The temperature controlled package for an oscillator according to claim 10, further comprising a temperature hood covering ~~one or more of~~ said temperature-sensitive components on said thermal conductive substrate.

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Claim 15(Currently Amended) A resonator package with thermal control, comprising:
a device enclosure having a top, a floor, and side walls, and wherein ~~one or more~~ at least one pin extends from said enclosure;
a thermal conductive substrate having a plurality of temperature sensitive components mounted to said thermal conductive substrate;
a plurality of insulating posts securing said thermal conductive substrate;
a second substrate affixed to an interior surface of said floor of said device enclosure, with a plurality of temperature insensitive components mounted to said second substrate;
~~one or more~~ at least one second substrate interconnects electrically connecting said second substrate with said ~~one or more~~ at least one pins extending from said device enclosure;
~~one or more~~ at least one thermal conductive substrate interconnects electrically connecting said thermal conductive substrate to said ~~one or more~~ at least one pins extending from said device enclosure; and
a section of printed circuit board, wherein said one or more at least one pins are is electrically connected with said printed circuit board and wherein said device enclosure is physically mated with said printed circuit board.

Claim 16(Original) The resonator package with thermal control according to claim 15, wherein said resonator package is a surface mount device.

Claim 17(Currently Amended) The resonator package with thermal control according to claim 15, further comprising ~~one or more~~ at least one interconnects electrically connecting said thermal conductive substrate with said second substrate.

Claim 18(Currently Amended) The resonator package with thermal control according to claim 15, further comprising a temperature hood covering ~~one or more of~~ said temperature sensitive components on said thermal conductive substrate.

Claim 19(Original) The resonator package with thermal control according to claim 15, wherein one of said temperature sensitive components is a surface acoustical wave device directly bonded to said thermal conductive substrate.

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Claim 20(Original) The resonator package with thermal control according to claim 15, wherein one of said temperature sensitive components is a bulk acoustical wave device secured by a plurality of clips to said thermal conductive substrate.

Claim 21 (New) The temperature controlled structure according to claim 9, further comprising at least one temperature sensitive component on said thermal conductive substrate and covered by said temperature hood.

→ Claim 22 (New) The temperature controlled structure according to claim 1, wherein said at least one component is chosen from the group of components comprising: controller electronics and processing circuitry.

Claim 23 (New) The temperature controlled structure according to claim 1, wherein said second substrate layer is affixed to said package floor.

Claim 24 (New) The temperature controlled structure according to claim 1, wherein said second substrate layer is secured to said package floor by at least one insulating structure.